

PRESENTATION FRETWORK DESIGN WITH THIS NUMBER.

Hobbies

• A Weekly Journal •

For Amateurs of Both Sexes.

No. 12. VOL. I.

JANUARY 4, 1896.

ONE PENNY.

“HOBBIES” FRETWORK COMPETITION.

In view of the great importance of securing thoroughly good and suitable wood for making the

MODEL OF A VICTORIA,

the Design of which was presented with *Hobbies* No. 10, we have specially prepared a large number of parcels of

SUPERIOR FRETWOOD,

both Three-Ply and Solid. These parcels are ready for despatching, and will be sent off immediately on receipt of Order.

THREE-PLY WHITE WOOD.

Sufficient Three-Ply WHITE SYCAMORE or WHITE CHESTNUT, $\frac{3}{16}$ -in. thick,

PRICE, 1/9. POST FREE, 2/3.

SOLID WOOD.

Specially selected PADOUK and MAPLE (forming a judicious contrast as suggested in *Hobbies*),

PRICE, 1/9. POST FREE, 2/3.

J. H. SKINNER & Co, H Dept., Dereham, Norfolk.



STAMPS

Week by Week.

A Philatelic Causerie by PERCY C. BISHOP,

Joint Editor of the "STAMP COLLECTORS' FORTNIGHTLY;" Ex-Editor of "THE PHILATELIC JOURNAL" and "PHILATELIC REVIEW OF REVIEWS;" General Secretary of the LONDON PHILATELIC CLUB.



NOW that the question of the reproduction of postage stamp designs for the purposes of Philatelic literature is so much to the front, it may not be waste of space to give the text of a notice which was sent out from the Inland Revenue Offices some years ago. It reads as follows:—

IMPORTANT NOTICE TO
STAMP DEALERS AND THE
PUBLIC.

IMITATION OF POSTAGE STAMPS.

WHEREAS there is reason to believe that certain persons are engaged in manufacturing, dealing in, or selling for the purposes of stamp-collectors and for other purposes, imitations of Stamps for denoting rates of British, Foreign or Colonial Postage, whereby the respective Revenues are endangered, the Postmaster-General and the Commissioners of Inland Revenue desire to call attention to the Law on the subject.

The Post Office Protection Act 1884 enacts, amongst other things, as follows:—

(Section 7.) A person shall not—

- (a) make, knowingly utter, deal in or sell any fictitious stamp, or knowingly use for any postal purpose any fictitious stamp; or
- (b) have in his possession, unless he shows a lawful excuse, any fictitious stamp; or
- (c) make, or, unless he shows a lawful excuse, have in his possession, any die, plate, instrument, or materials for making any fictitious stamp.

"Any person who acts in contravention of this Section shall be liable on summary conviction on a prosecution by order of the Commissioners of Inland Revenue to a fine not exceeding £20 subject to the like right of appeal as in the case of a penalty under the Acts relating to the Excise."

"Any stamp, die, plate, instrument, or materials found in the possession of any person in contravention of this Section, may be seized and shall be forfeited."

"For the purposes of this Section 'fictitious stamp' means any facsimile or imitation or representation, whether on paper or otherwise, of any stamp for denoting any rate of postage, including any stamp for denoting a rate of Postage of any of Her Majesty's Colonies, or of any Foreign Country."

Persons who may be in any way engaged in these illegal practices should also take notice that the fraudulent imitation of Stamps is a felony under the Post Office and Inland Revenue Acts.

*By Order of the Postmaster-General,
and the Commissioners of Inland Revenue.*

Happily every Philatelic editor is able to show the best of all lawful excuses, and is thus safe from the operation of the Act as at present framed.

—:O:—

'Ware Queenslands with forged postmarks! I shall be able to give fuller particulars, with a copy of the bogus postmark, next week; but think it just as well to sound a note of warning forthwith.

—:O:—

A good instance of the colossal impudence with which the promoters of "special" issues of stamps work their nefarious schemes is afforded by some correspondence that has passed between the Scott Stamp and Corn Company, of New York, and a Dr. Sakkorrophos, of Athens. The Doctor, by the way, is the President of the Athens Philatelic Club, but for all that he has not the best interests of Philately at heart, or he would never have lent himself to the promotion of the projected "Olympic Games" issue of Greece. Writing to the New York firm regarding this forthcoming issue, the Doctor coolly offered to supply them with the *whole issue of the 1 lepton denomination at less than face value!* And when the Scott Company pointed out that this very offer proved the issue to be a speculative one, Dr. Sakkorrophos waxed virtuously indignant to the extent of about twenty pages of writing paper, winding up with an intimation that his offer will be transferred to some other firm. I sincerely hope no firm will accept it, and that Philatelists all the world over will unite in boycotting this rubbishy issue, which is already on the black list of the Society for the Suppression of Speculative Stamps.

—:O:—

Which is the rarest postcard? We have had it settled to every one's satisfaction that the 1c. British Guiana, of 1856 (of which only one

copy is believed to exist) is the rarest of all stamps, and it would now be desirable, as a Bedford reader points out, to get at the scarcest of all postcards. I have recently seen it stated, on the authority of two experts, Messrs. Geo. H. Watson and Adolf. Lohmeyer, that the pale yellow Mexican card of 1882, with the head of Juarez on both stamps (the 1c. stamp in lilac over the 2c. stamp in brown) is difficult to beat for rarity. Perhaps some of those readers of *Hobbies*, who go in for postcards extensively, will give me their views?

—:O:—

NEW ISSUES OF STAMPS.

*. Items for this department will be gratefully received from any Philatelic readers who happen to receive early information of new issues, or of impending changes in the postal arrangements of any country.

ECUADOR.—Messrs. A. Monteith & Co., of Southport, send me a specimen of a new addition to the 1895 set of this country. It is the 10 centavos, printed in a rather lighter shade of red than the same value of the 1894 series. "For some time past," write Messrs. Monteith, "the 10c. stamps of Ecuador seem to have been very scarce, most letters being prepaid by 5c. stamps or by 10c. telegraph stamps.

NICARAGUA.—The 5c. blue, I am informed, is appearing in a darker shade than heretofore.

TO STAMP COLLECTORS



NEW
Illustrated Price List
GRATIS ON APPLICATION.

Monthly List
of Philatelic Novelties
6d. per ann., post free.

Selections of Stamps sent
on Approval.

STAMP ALBUMS UP TO DATE.

Send for Illustrated Prospectus & Testimonials.

WHITFIELD KING & CO., STAMP IMPORTERS,
ESTABLISHED 1869. IPSWICH.

TAKE YOUR CHOICE, 1 SET OF 19 FRENCH COLONIALS, or
GRATIS 1 SET OF 5 BOLIVIA, 1894, 1c. TO 20c.

Either ONE of above fine sets will be presented Gratis to every purchaser of our Special "XMAS" Packet, containing 96 Stamps, all different, including Perak, large tiger head, just issued; Chili, 20 c. black, scarce; Spain, 1879; Canada, 8 c.; Java; Argentine; Cyprus; U.S. Unpaid, obsolete; Jamaica; Hyderabad; Swan River; Egypt, official; Zambesia, new; Travancore; Italy, Parcel Post; Guatemala, bird; Congo Free State, magnificent view of bay; &c., &c. Free, 1/1. Selections sent on approval. Liberal discount allowed. Grand NEW Illustrated Catalogue, TEN EDITION, for Collectors; or Wholesale List with Addenda for Dealers. FREE. Exchange Circular—largest published—16 pages. Free, 8d.

FISHER, TITLEY & Co., Stamp Importers, BATH.

Phil May's Winter Annual

Of all Booksellers, Newsagents, and Bookstalls.

Publishers: WALTER HADDON,

Bouverie House, Salisbury Square, London, E.C.

Photographic Hints for Amateurs.

ARISTOTYPE PAPER, TONED WITH PLATINUM.

Mr. J. Kidson Taylor, a very successful amateur Photographer, was recently awarded several medals for his Photograph—"A Hampshire Home," and gives the following particulars of the preparation of the print, which was made upon a gelatine aristotype paper, toned with platinum, and so treated as to give a dull mat surface.

TONING BATH.

Chloro-platinite Potassium ..	3 grains.
Sodium Chloride ..	50 "
Citric Acid ..	50 "
Water ..	20 ozs.

Not more than two prints should be toned in the above bath at a time, and before toning the prints should be carefully washed. When the desired depth of toning is reached, the prints are placed in an alkaline bath—Sodium Carbonate—and fixed in—

Hypo ..	2 ozs.
Sulphite Sodium ..	1 "
Water ..	20 "

The mat surface is secured by squeegeeing on the finest ground glass, and treating the prints, after washing, with a chrome alum bath.

SUBSTITUTE FOR GLASS.

On the Continent a material called "Tectorium" is being used instead of glass. It is a special, insoluble, bichromated gelatine, translucent as opal glass, tough and flexible, does not dissolve in water, and is not affected by frost. This material would be useful for Dark Room windows, and might be helpful in many hobbies.

HOW TO MAKE A HYGROMETER.

We take this from a German exchange, and as freedom from moisture is, to photographers, a matter of great importance, a simple method of making a Hygrometer will be of service:—Take a blonde human hair, about 60 cm. long, put it into a boiling solution of soda, subsequently rinsing for ten minutes in distilled water. Next fasten one end of the hair thus freed from oil to a stick 60 cm. long attached to a board, while the other runs over a little roller with a diameter of 12-15 mm. To the free end of the hair attach a 2-grammes weight to hold it taut. The roller is supplied with a hand which moves over a paper scale when the handle turns. To graduate the instrument put it into a closed box containing burnt lime or calcium chloride. The position then assumed by the hand is marked. Then place it in a vessel containing a bowl of lukewarm water. After twenty minutes, mark the new position of the hand, and divide the space between the two marks into 100 equal parts. When the Hygrometer reaches 80-85 the air is very moist. This instrument will be found especially useful when working with platinum paper, as if the air be very damp platinotype printing should always be suspended. Cm., centimetre, is 0.39371 of an inch; mm., milimetre, is 0.03937 of an inch.



AN ELECTRIC GAS LIGHTER.



IN the first number of *Hobbies* a short description of an Accumulator for using with an Electric Scarf Pin was given; the same Accumulator will answer equally well for the following useful pieces of Electrical apparatus:—A Gas Lighter, a Buttonhole (Flower) Lamp, a Pocket Reading Lamp, and a Cigar Lighter. The Gas Lighter, which we shall describe in this chapter, is constructed on a very different principle to those which no doubt the reader has seen and perhaps handled, and to make one of which would involve a great amount of technical skill. The principle upon which these generally work may be briefly explained: the body or handle usually contains a small magneto machine, the armature of which is rotated by pressing a push; this causes a small electric spark to flit between two platinum points, which upon being applied to the gas causes it to ignite.

The Lighter, which will be designed so that the amateur who possesses only a few simple tools can construct it, derives its current from an Accumulator which is connected to it by suitable conductors; upon completing the circuit by pressing the push the current flows along copper wires, and owing to the high electrical resistance presented by a piece of German silver wire, this rapidly becomes red or white hot, thus enabling the gas to be lit.

As the reader now understands the principle, the construction may be proceeded with.

First obtain the following articles:—about three feet of No. 22 double cotton-covered wire; eighteen inches of brass or copper tubing, half-inch in diameter, three inches of No. 36 German silver wire; several pieces of stout spring brass, quarter-inch wide; and a few small brass screws, quarter-inch long. There are one or two other odds and ends required, but these can be obtained later on.

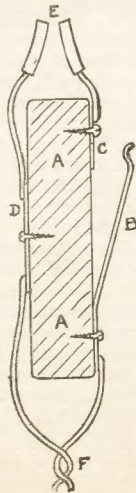


FIG. 1.

The first thing to be made is the contact breaker. This is actually a kind of switch, since it serves to complete the circuit. "Completing the circuit" is the term Electricians use to express that the wires, switches, etc., are connected so that the electric current can flow through them.

First procure a block of wood, such as Mahogany, Teak, or other hard wood, two inches long, one and a half-inch wide, and half-inch thick; the longest sides must be trimmed down so that they form the arcs of a circle one and a half-inch in diameter. This piece must then be boiled in paraffin wax, and when sufficiently impregnated should be taken out and wiped dry.

Now take a piece of the spring brass and cut off three pieces. One piece one and a half-inch long, ditto three-quarter-inch long, and another one inch. Screw the smallest piece at the top of one side, and the longest piece at the bottom, so that it overlaps

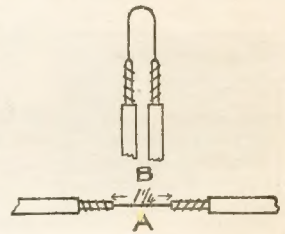


FIG. 2.

the other piece to the extent of a quarter-inch. This piece must be bent outward as shown in Fig. 1, B, which shows the contact breaker complete. The other piece must then be screwed on the back of the block. The holes in these brass pieces may be drilled with an ordinary Archimedeian Drill.

The next thing to tackle is the "igniter." To make this first cut the cotton-covered wire into two equal lengths, and at one end of each wire cut away the cotton insulation to the extent of half-inch, and then twist the ends of the German silver wire round these ends, and if possible hard solder them. There should be a distance of one and a quarter-inch between the ends of the copper wires; this is distinctly shown in Fig. 2.

The reason why German silver wire is employed for our purpose in preference to any other metal, is because it opposes the passage of the Electric current so much that it becomes heated, which serves our purpose to a nicety. This wire is not very expensive, the cost varying from one shilling to eighteen pence per pound. The reader must not make a mistake and get *real* silver wire, as

this would be worse than useless for the purpose. German silver is an alloy or mixture of metals, but it does not contain a particle of real silver. Real silver is the best metal conductor of Electricity that we know of, and it differs rather more than a trifle in cost, averaging about 48. per ounce.

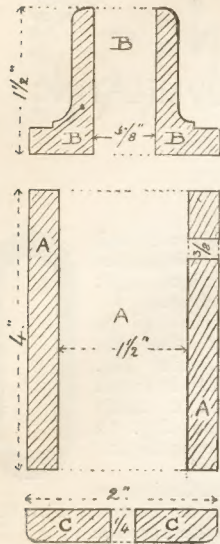


FIG. 3.

and a half-inch internal, and two inches external diameter, the walls thus being a quarter-inch thick; B, the top cover; and C, the bottom cover. Reference to the drawings will give sizes and shapes. A three-eighth-inch hole must be bored in the cylinder, at a distance of seven-eighth-inch from one end, for the push. These pieces should be ebony stained and wax polished. Fig. 3 shows the various parts.

The holder will now require fitting up, but before doing this a button will be required. Although called a button it does not bear the faintest resemblance to the very useful article of that name which we all use on our wearing apparel; in shape it resembles a bullet more than anything else. The button should be made of bone or celluloid if possible, but, if not procurable, wood may be used. In any case it should contrast forcibly with the colour of the holder; in size it should be seven-eighth-inch long by three-eighth-inch in diameter, and the flange at the bottom should be half-inch in diameter. The button should be inserted in the hole in the cylinder from the inside, in which it should work easily.

We have now arrived at a delicate part of our operations, but with a little care it can be managed. The aforesaid operation consists of fitting the contact block into its right position in the cylinder. The block, which should fit rather tight, should be placed in the cylinder with the flexible wire downwards, so that the button engages the spring brass strip. When the button is pressed the bottom brass strip will make contact with the one above it. Reference to the complete sectional drawing, Fig. 4, will make this clear. When the block is in position a couple of brads may be driven through from the outside of the cylinder, to make it secure. These brads must not, under any circumstances, touch the metal work or the screws.

Now take the wires just mentioned, and at the free ends bare about one inch of each and solder them to the top pieces of brass on the contact breaker. A short length of No. 22 silk-covered twin flexible wire must be joined to the contact pieces; all this is shown in Fig. 1. This flexible wire is to connect the igniter to the Accumulator.

The next thing to be made is the holder; this will require to be turned in a lathe, but if the reader does not possess this "king of tools," he can get the parts made for a few pence. The holder consists of three pieces: A, a cylindrical body four inches long, one

Before securing it, however, it would be advisable to test the instrument; this is not a very difficult or complicated process, as it only consists of connecting the flexible wire to the Accumulator terminals. Then take the cotton-covered wire in one hand and press the button. The German silver wire should then become highly heated. If all appears to be right, the block can be secured.

The next matter is to fit the tube. This tube serves to protect as well as to keep the wires stiff, and would look none the worse if nickel-plated. The tube should be placed alongside the wires, so that the ignition holes can be marked off. These holes should be one-eighth-inch in diameter, and should be drilled just where the German silver wire comes. There should be about a dozen holes. The other end of the tube should be roughened, so that glue will cling to it; then coat the inside of the hole in the top, cover with glue, and fit the roughened end of the tube into it.

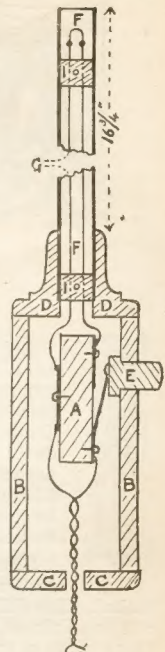


FIG. 4.

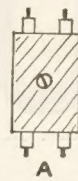


FIG. 5.

The cotton-covered wires must now be clamped. These clamps or clips serve two purposes,—first, to prevent the wires shaking about in the tube; and second, to keep them a proper distance apart. The construction of these clips is not a very intricate process, as they only consist of two small pieces of wood or ebonite, with a little screw to each clip. The material should not be more than one-eighth-inch thick and three-quarters of an inch long by half-inch wide. Fig. 5 shows the various parts in position. These clips must be fastened, one at the top and the other two inches from the bottom of the cotton-covered wires. The ends of the clips must be rounded off to fit the tube easily.

When the wire and clips have been coaxed into the tube, the Electric Gas Light is complete.

The German silver wire will require renewal from time to time. When lighting gas with this instrument it will be found best to keep the push pressed down all the time it is being used.

SUMMARY OF ILLUSTRATIONS.

Fig. 1.—A, Block; B, Contact Spring; C, Contact Piece; D, Joining Piece; E, Cotton Covered Wire; F, Silk Covered Wire. Fig. 2.—A, German Silver Wire Joint; B, Same Bent. Fig. 3.—A, Cylinder; B, Top Cover; C, Bottom Cover. Fig. 4.—This is the complete instrument to a reduced scale. A, Contact Block; B, Cylinder; C, Bottom Cover; D, Top Cover; E, Button; F, Tube; G, Cotton Covered Wire; H, Silk Covered Wire; I, Clips. Fig. 5.—A and B, Clips Front and Side.

FRETWORKING

SCROLL-SAWING, INLAY AND OVERLAYING

CHAP. XII.—CHAINS.

IN speaking here of Fretwork Chains, we are not going to describe the making of any such Article that would be serviceable for a Hoist Pulley or a Builder's Crane! Nor is it the delicate watch chain which is to be illustrated. Our desire is merely to shew how genuine Chains may be cut in wood, and may be used for suspending light flower baskets or other ornaments.

The first idea which will strike the reader is—how the links are to be linked. The difficulty is overcome in this way:—

cut the link as Fig. 61, with a slit (done with a run of the saw) at one end. If the wood is not too thick, it can easily be bent so as to let another link slip in. To give final strength and security, the slits can then be glued. When the cut is made at either end, it will not be seen, as the adjoining link covers it.

It is advisable to allow the rim to be slightly wider at the top and bottom, where the strain will be felt. This is shewn on the illustrations.

It might be said, that to lessen the chance of accidents, 3-ply wood should be used. For Articles such as this, its value is ten-fold greater. For example, if solid woods were used, and the grain allowed to run up and down, as in Fig. 62, it will be seen that at point A the link would be extremely delicate. If, again, as in Fig. 63, the grain were to run across, the link would be very liable to snap through the middle, particularly if it were of any length. 3-ply wood, on the other hand, gives strength in both directions, and in adjusting the companion links, there would be little fear of a sudden crack.

Woods which are less apt to split, and which might occasionally be used solid, are—Olive, Padouk, Rosewood, Tulip, White Holly, Bird's Eye Maple, and Ebony. At present, most of these cannot be obtained in 3-ply.

With a small link, wood of more than one-eighth inch thickness should not be used. There would be a difficulty in forcing it apart so as to let its neighbour in; and if a wide slit were cut, it would not glue tightly afterwards. A large link

naturally yields more, and if desired three-sixteenths or one-quarter inch might be used in such cases.

Another point to be mentioned is that the rim must be slender. Fig. 64 could hardly be forced apart beyond a hair's breadth, while Fig. 65 would easily open to suit the purpose.

As Fretwork Chains are not supposed to bear a heavy weight, there need be no hesitation in making the links somewhat slim. A rough trial or two would soon shew the reader what is convenient, and what impossible.

The interior part should always be sufficiently wide to give the other links a certain freedom of movement. Any stiffness increases the chance of disaster.

In cutting ordinary Chains, there is a good deal of monotony in having to saw so many links of one form; and it may be suggested that as Chains are not wanted every day, the reader—when he does set about to make one—should choose a pattern with some variety in it. Figs. 66, 67, and 68, have each two different links, and if four or five were cut at a time, the work would not be so tedious.

VARIOUS DESIGNS.

The reader must be careful to choose a link which suits itself to the purpose for which it is used. If the Chain is to be purely Ornamental, and is to hang in the form of a swag, a short small link should be taken. Fig. 69 would do

for this; but, on the other hand, such a pattern as Fig. 70 could only be used when the Chain was vertical, or was actually helping to suspend some Article. Where Chains of some three or

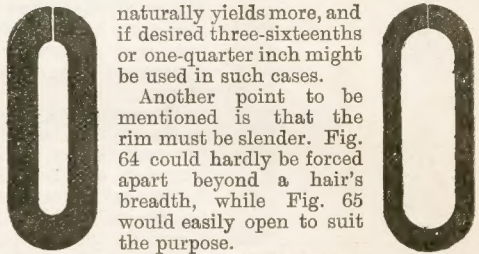


FIG. 64.

FIG. 65.



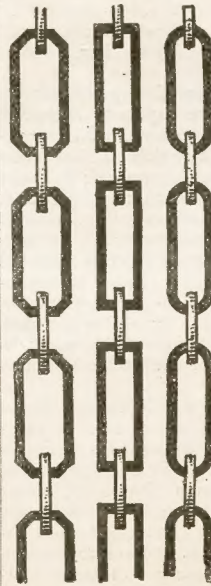
FIG. 61.



FIG. 62.



FIG. 63.

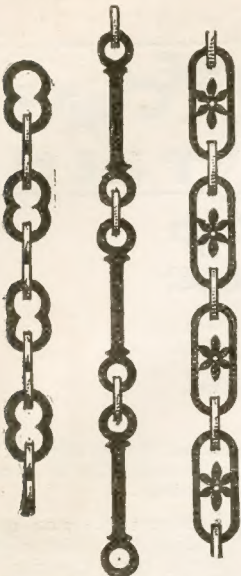


FIGS. 66. 67. 68.

four feet in length are required, such an idea as Fig. 70 will be found very useful. The links may

be cut six or eight inches long, and can be made simple or elaborate, as the worker pleases. They should be joined by small circular rings, also of Fretwork. If the Chains were about six feet long, two of these rings linked together might be used; this would cause the large links to face each way alternately.

Fig. 71 shows the well known pattern, slightly decorated; and Fig. 72 is a link which has an overlaid leaf. In this last case, however, it is seldom worth while to go to the trouble of actually overlaying the work. A simpler plan is to cut out the whole Design solid, and then trace the overlapping edges of the leaf, and



Figs. 69. 70. 71.

also the veins, with Indian Ink. If real strength were wanted, the method of Fig. 73 might be adopted. The links, although double, are in one piece of wood, but have two loops at each end, which are linked to the small connecting rings. This pattern would not look well, unless very accurately cut. Carelessness in sawing would prevent the Chain hanging neatly.

Fig. 74 is a Design with two patterns of Ornamental links. It could be made as drawn; or the intermediate rings could be dispensed with; or two rings could be placed (linked to each other) — so as to let the middle link face the other way.



Fig. 73.

Of course, endless Designs could be shown; but sufficient have been given to indicate what can really be done in this line. The purpose, here, is more to enlighten some reader on the general principle of Fretwork Chain-making, than to supply patterns for him to saw.

It is not recommended to choose an elaborate link. Simple patterns hang in a much more graceful fashion, and invariably look better. They look, in fact, more like what they are meant to be—chains.

It is often desirable to suspend Chains from the ceiling, and two simple methods, as shown in Figs. 75 and 76, may be given.

Two hooks are cut out, crossed in

the usual half-and-half joint way, and firmly screwed to the roof-plate. The latter can then be fixed to the ceiling. Fig. 76 is preferable to 75, as the Chains could more easily be removed when wanted.

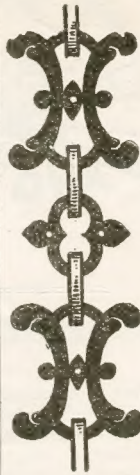


Fig. 74.

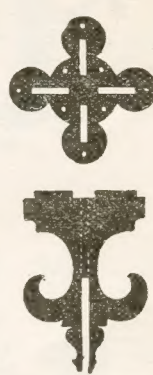


Fig. 75.



Fig. 76.

The Fretworker will find Chain-making a very economical pursuit, as he can use up almost every little odd piece of wood which he has lying about. There need be no hesitation in employing half-a-dozen varieties in a single chain, always provided that they are arranged methodically, and that the different pieces are of equal thickness. It is not advisable to use expensive wood, as the value, though *real*, would not be *apparent*.

Any polishing should be done before the links are joined together, otherwise it could not be done neatly.

If plain wood were used, the Chains might be gilded or ebonized, but any work of this sort is only permissible in exceptional cases.

(To be continued.)

5/- POST FREE. FRETWORK OUTFIT. 5/- POST FREE.

Do not MISS THIS OFFER.

Every Tool guaranteed fully worth the prices stated.

One 12 inch or 14 inch Fret Frame with Screw in Handle ..	8. d.
One Centrifugal Drill with 12 Bits, 6 for iron and 6 for wood ..	1 6
One Cutting Board with Iron Clamp ..	0 6
One dozen EACH Star and Swift Saws ..	0 7
Two Small Bracket Designs ..	0 4
One pair Bright Pliers ..	0 6
Three Files ..	0 6
One Bradawl ..	0 2
One Sheet Tracing Paper ..	0 3
One Bench Vice ..	0 9
Six dozen Fretwork Screws, 1/4-in., 3/8-in., 1/2-in. ..	0 6

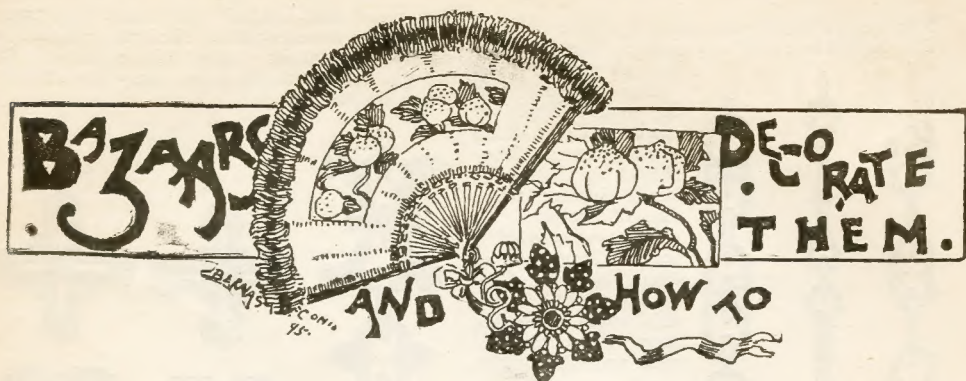
The above magnificent Set of Tools will be sent POST FREE for 5/- SEND AT ONCE. Postage 0 9

Star Saws 1/6 for 6 doz. Lists on application, kindly enclose 1d. stamp.

NOTE THE ADDRESS: HINDLEY & JONES, Fretwork Stores, Norfolk Market Hall, SHEFFIELD.

£20

TOBACCONISTS COMMENCING. See Illd. Guide & Catalogue. (259 pgs.) 3d., "How to open a Cigar Store, £20 to £2,000."—Tobacconists' Outfitting Co. (Reg.), 186, Euston Rd., London. N.B.—Shopfitters and showcase makers for all trades. (Over 50 years' reputation.) Mgr., H. Myers.



CHAP. XI.—SIDE SHOWS—*Concluded.*



PEEP SHOW.

munerative one, but none the less it is worth a trial, especially as the difficulties to be encountered in setting it up are not very great. Procure or make a box of the form indicated in the accompanying illustration, and finish it off neatly all round either by painting it or covering it with some fancy cloth. Cut two or three eye-holes in the front, and fit these with simple lenses. The Peep Show may be placed on a table, or on the stand of a butler's tray, but care should be taken to have it placed at a convenient height for young children to look through.

The interior of the box need not be elaborately fitted; in fact the simpler the arrangement the better will it work. A number of Photographs, reproductions of Photographs, or pictures, should be obtained and mounted on pieces of stiff cardboard, all of a uniform size. Grooves must be made in the interior sides of the box for these pictures to run. To each picture is attached a cord so that, when the child is looking through the lens, one after the other can be raised into the upper portion of the box, and lowered again for the next visitor.

The last Side Show which it will be necessary to mention is the "Performing Dog." This is another Show like the "Dwarf" and "Photographic Saloon" where it is necessary to have

the services of two gentlemen who are disposed to make utter fools of themselves in order to stimulate the risible faculties of others.

The gentleman who represents the *man* may be dressed either as an ordinary travelling showman or as a clown. In the latter capacity he will have more scope for his tomfoolery. The dog, naturally, must be dressed as a dog,—so far as the gentleman's figure will permit. Skins and fur will bring about a wonderful transformation, and no fastidious care need be taken to represent a particular kind of dog, as it may be taken for granted that the species would be unrecognizable.

The dog of course must be a clever dog. He must be able, by picking out letters, to spell his own name,—and some ferocious name it should be. He should be capable of estimating the ages of various persons amongst the audience by selecting figures,—and greater merriment will be caused should he sometimes hit rather wide of the mark. He must dance, walk on his hind legs,



on his fore legs, stand on his head, bark, and utter a few sounds which, if unintelligible, his master will translate. If practicable, he must be able to wag his tail; in fact, all round, he must be ready and willing to oblige and to humour the spectators. The rest must be left to the actors; indeed everything depends on them.

An entertainment of this sort

would work in well with any other Side Show, or, if suitable, it might be carried on outside. A great deal of amusement may be had from it, and if well done a number of pennies may be picked up.

PRIZE Competitions

A COMPETITION FOR EVERYONE.

We have decided to offer Prizes for a Special Competition in which every reader of *Hobbies*, who may care to do so, will be able to take part.

We will give a Prize of ONE GUINEA for the best, and one of HALF-A-GUINEA for the second best, list of TWELVE HOBBIES suitable for treatment in this paper. The subjects which have already been written upon may be included if the Competitor thinks well to do so.

It must not be forgotten that *Hobbies* is intended to deal with the recreative occupations of ladies as well as with those of the other sex. What we wish every Competitor to do is to make a list of the Twelve Hobbies which he or she may think more interesting and more useful than any others, and arrange them in what may be considered the order of their importance.

The Prizes will be awarded to the lists which we regard as the most suggestive and best calculated to appeal to the interest of the largest number of our readers.

All envelopes should be marked "Suggestions Competition," and must arrive at our office not later than Saturday, February 8th.

DESIGN FOR CARD RECEIVER.

For the best original Designs for Fretwork Card Receivers we have awarded the Prizes as under:—

First Prize (Ten Shillings)—HENRY S. CRAWFORD, 11, Kenilworth Square, Dublin.

Second Prize (Five Shillings)—ROBERT R. BELL, 28, Abbotsford Place, Glasgow.

The First Prize Design is in the Heraldic style; the work is careful and accurate, and the general treatment shews considerable originality and skill.

We hope to be able to reproduce this Design on one of our early Supplement sheets.

The Pattern submitted by the Second Prize-winner is much more adapted for Metal Fretwork, as the ornament is too small and delicate for wood. The arrangement is neat and effective.

Of other Designs received, one by F. J. EVANS, (Brighton), might be mentioned. The subject is "The Fairy Swing," and, curiously enough, is after the same idea as the "Swing Boat" Match Holder presented with this week's *Hobbies*. A fairly good Pattern—"The Chariot"—has been sent by ARTHUR E. WALKER, (Birmingham), aged 15, but the drawing shews a rather imperfect knowledge of the requirements of Fretwork. The Design of DAVID R. WILLIAMS, (Barnsbury, N.), is good in idea, but is somewhat confused in treatment. S. W. MORRIS (Dundee) has submitted a carefully arranged Pattern of the "Plate" form.

We fear that many readers have a faulty notion as to what a Card Receiver is. One Competitor,

for instance, sends a Photo Frame, apparently being under the impression that a "Carte de Visite" Holder was asked for. Another submits a heel ball rubbing of a carved table top, while a third designs a receptacle for holding playing cards. As the term *Card Receiver* is so well known in Fretwork circles, and as so many catalogues contain Patterns of them, we did not think it necessary to explain that it was a small article for holding ordinary calling cards which was wanted.

Although a number of fair Designs were sent in for this Competition, we were rather struck with a general all-round lack of originality, most of the Patterns being arranged in the old-fashioned basket style.

PHOTOGRAPHY.

Every month we give a Prize of Ten Shillings for the best Photograph, and Five Shillings for the second best. Subject for this month—Landscape or Seascape. Photographs cannot be returned, and we reserve the right to reproduce any of them in *Hobbies* if thought desirable. Photographs for this Competition must be sent to our office not later than January 31st, marked "Photograph."

FRETWORK.—VICTORIA COMPETITION.

For the best Fretwork Model of a Victoria, made from the Design presented with *Hobbies* No. 10, we offer Two Prizes:—

First Prize—An "IMPERIAL" TREADLE FRETSAW, with Superior Tilting Table for Inlay Work, Vertical Drilling Attachment, and all Modern Improvements.

Second Prize—A Finely Finished Treadle Fret-saw, with Nickel-plated Tilting Table, Emery Wheel, etc.

Full particulars of this Competition will be found in *Hobbies* No. 10 or No. 11.

JUNIOR FRETWORK COMPETITION.

We offer an IMPROVED "ROGER" TREADLE FRETSAW, with Tilting Table, Dust Blower, Drill, etc., and Three Additional Prizes of One Gross of the best Fretsaw Blades each, for the best examples of Fretwork cut from the "Hobbies" Tablet presented with No. 11, by any reader under 16 years of age. Full particulars and conditions will be found in last week's *Hobbies*, and on the Presentation Supplement of that number.

BENT IRON WORK AND CARVING.

With *Hobbies* No. 14 we shall give away a handsome Design for a Bent Iron Work Grill Panel, and will offer Prizes for the best articles made from this. A Wood Carving Competition will also be announced shortly.

NOTICE TO COMPETITORS.

All Articles, Sketches, etc., for Competition should be addressed to the Editor of *Hobbies*, Bouverie House, Salisbury Square, London, E.C. The name and full address of Competitor must in every case be sent.

NOTE:—No correspondence can be entered into with Competitors, and all awards made will be final.

BENT IRON WORK

CHAP XL.—EXTRA CURVE FORMS.

IN this Chapter, some of the less common forms used in Bent Iron Work will be described; and as these are rather numerous and require explanatory illustrations, little more can be done than merely to mention them. Want of space has prevented all the sketches from being shewn on a uniform scale. Most of them are necessarily drawn to a small size, but others are slightly enlarged in order to accentuate special features. They will, it is trusted, be sufficiently clear for the purpose.

TENDRILS.

In some previous diagrams Tendrils were introduced. These little Ornaments are frequently placed in between two C curves, in order to give a good termination. Three may be inserted as in Fig. 88, or only one may be used. In this, a point to be considered is the difficulty in tightly clamping a number of strips with the Collar Band. Tendril Forms may also be treated as in Fig. 89; or they could be



Fig. 88.

twisted round a solid Iron bar as in Fig. 90. They are very useful in filling up odd spaces, where a curve would be



Fig. 90.

too large, or otherwise unsuitable. Tendrils always look better when they are of narrow Iron; and where strips of one-quarter inch, or more, are being used, it is, perhaps, advisable to taper the ends to a somewhat blunt point by means of the shears. This, however, depends entirely on the style of the Design.

TWISTS.

Somewhat akin to the Tendril is the Twist Pattern. Figs. 91 and 92 explains what this form is, though they may probably fail to impress the reader with a full idea of the *patience* required in producing such strips. The chief difficulty is to preserve one's temper; this accomplished, the actual bending work is quite simple when done exactly in the right way. A few trials on some



Fig. 89.

pairs of Pliers, allowing only about half an inch of the Strip Iron to appear between them. When the first twist is formed, move both Pliers and turn the second twist, going on in this way to the end. A great deal of coaxing is required, and possibly one or two strips will be spoilt before a satisfactory one is turned out. When the "knack" has once been hit upon, the work is simple; but the difficulty is to get that knack.

When the Iron is to have a scroll at each end, both should be done before the Twist is attempted. If a Twist happens to be wanted for a Tendril, or for the end of some Centre Stem, the Iron should first be tapered to a point, as this gives a better finish when the Strip has been duly turned into shape.

The ends of a C curve, instead of being formed into a close spiral, might receive a half-twist as in Fig. 93. In this case, the ends of the Iron have been trimmed with the Shears, so as to give the appearance of a leaf. Of course, it would be necessary to twist the ends before the Fig. 91. Fig. 92. curve was formed. If the centre stem were turned similarly (as illustrated), the result would be a rough idea of the Fleur-de-lis Ornament.



Fig. 94 shows another method where Iron could be twisted. When lines intersect, instead of fixing them by the half-cutthrough joint as described in the last chapter, the strips could be turned half round, so as to

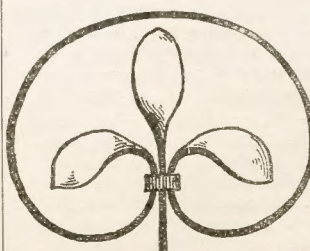


Fig. 93.

odd pieces of Iron will prove this. Use two

present their flat surfaces; they could then be



FIG. 94.

riveted, or could be fixed with a round-headed screw. This is not mentioned as an easy plan; but if it were done neatly, it would lend some variety to the Pattern.

VARIOUS CURVES.

When a Spiral is insufficient to fill up a certain space, and an additional curve is not desirable, a small Spiral might be inserted, as in Fig. 95. A Tendril might do equally well, but the spiral, or a half-scroll, is more classic.

In Fig. 96 is seen an attempt to ornament a Collar Band. When two large C curves are to be joined, a pair of tiny ones could be placed at the junction, and bound in with the clamp. The point to notice is that the small curves, although formed in a C shape, are not to be regarded as regular C Curves, but merely as an ornamental addition to the Collar Band.

Figs. 97 and 98 are forms where convex and concave curves are abruptly separated by a sharp angle. Such figures appear often in examples of French Wrought Iron Work, and are rather difficult to bend neatly.



FIG. 96.



FIG. 95.



FIG. 99.



FIG. 100.



FIG. 101.

in making symmetrical. Figs. 89 and 90 might also be included as examples of Centre Stem treatments.

INITIAL LETTERS.

Initial Letters can be introduced into many articles. They are not difficult to form, as can be seen from Fig. 102. Some letters may be less adapted for Bent Iron Work, but every one can be formed in at least a recognisable fashion. Monograms should not be attempted unless they can be done without the lines having to intersect. It is not suggested that intersection is an actual drawback; but as the letters are usually required small, they would be more difficult to cross neatly with the half-cut-through joint. Numerical figures, for dates, will give very little trouble.

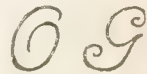


FIG. 102.

Naturally, it is quite impossible to speak of every form of curve which is, or which can be, treated in Bent Iron Work; but those which have been mentioned may, perchance, have the effect of giving the more imaginative amateur a few ideas as to the wide field which opens out to him in the designing line. It can only be regretted that the necessity for shewing a number of sketches has rendered it impossible to treat in detail with each variety of form.

Next week we hope to have a chapter on Bent Iron Chain making, after which we shall pass to the interesting subject of ornamenting Gas Brackets, Pendants, Lanterns, &c.

(To be continued.)

BENT IRON WORK.

Our new original Design Sheet, with prices of Iron, Copper, &c., and particulars of our New Tool, "THE IONICAL," sent on receipt of 1d. stamp.

→ BAMBOO WORK, ←

Bamboos, Panels, and every other requisite at low prices. Our New Price List and Sheet of Designs sent on receipt of 1d. stamp.

THE AMATEUR'S MARKET, 8, BRITANNIA BUILDINGS, LEEDS.

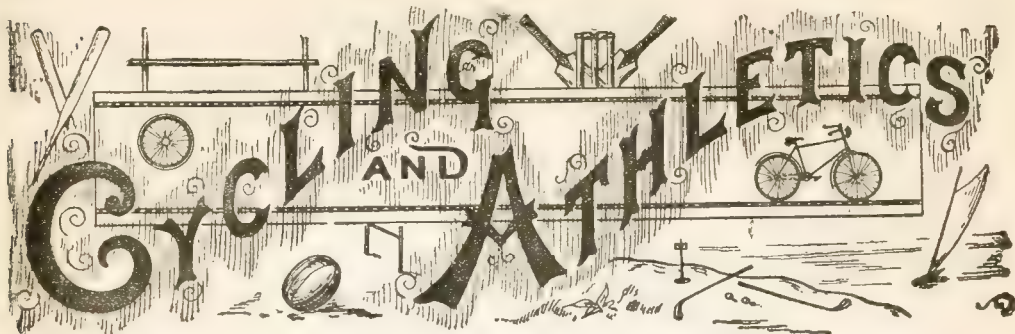
Fig. 99 also bears a Parisian look, and shews how curves and straight lines are treated in a single piece of Iron. This sort of pattern is far from easy to make, and should only be attempted by those who have had considerable experience.

CENTRE STEMS.

Centre Stems may be treated in many ways. Fig. 100 consists of a straight bar turned into a Tendril at the end, and of two sizes of half-C curves. Fig. 101 is more difficult to bend, owing to the angles which form the arrow-head shape, and which give some trouble



FIG. 98.



NOTES ON SPORT.

WHATEVER may be said against professional football, and we are strongly disposed to agree with much that has been said, there is little indication of any diminution in public interest. When we are witnessing a first-class football match, or athletic competition, our only regret is that the time we are spending in that way, as a passive spectator, might be perhaps better employed in taking part in some active exercise ourselves. An occasional visit to see high-class sport is good for every sportsman, but the vast majority of Association football spectators consists of people who go Saturday after Saturday to see the same thing, and probably not one in a hundred of them has any practical knowledge of the game. The players are paid, and the tendency of the entertainment is in the direction of the circus. The circus may be a very good one it is true, and the sporting element is by no means wholly absent, but the downward tendency is there, and, under the circumstances, cannot be eradicated. The local patriotism of the spectators, which is so strongly pronounced a feature of the game, can be nothing but mock sentiment, because the players who represent the crack clubs are brought from all parts of the kingdom, and are constantly being interchanged; bought and sold in fact, like so many prize cattle.

The skill exhibited by these highly-trained professional players is very great, and if we had lost the use of our legs, or were in any way incapacitated from participation in active exercise ourselves, we should no doubt take a keen delight in following Association football very closely. As it is, we are content to witness an occasional first-class match, but prefer, as a rule, to devote our Saturdays to a little physical exercise on our own account.

The excitement of the "League" competitions, is the great thing that keeps up the interest in professional football. The "League" consists of the 16 leading clubs of the kingdom, each of which, during the course of the season, has to play one match with each of the other 15. The club gaining the greatest number of wins, or points, heads the League, the others following in order of merit. The League list is published every week, and is of course constantly varying. Till quite recently the famous Birmingham club, the Aston Villa, held a strong lead. This was threatened first by Bolton Wanderers, then by Derby County and Everton, the latter club being now at the head, two points to the good of Derby and Aston Villa, who at present tie for second place.

Interest in Rugby football is not only well sustained, but appears to be increasing steadily. Several important matches have been played. Chief among these must be mentioned North v. South. South, here, includes Birmingham and district, and, of course, all the crack Metropolitan clubs.

This year's match was considered a very good thing for South, because the establishment of the Northern Union had sapped the strength of that division—many of the most powerful organisations having left the old Union altogether. The result was a surprising win for the North, who secured a substantial victory, mainly owing to the grand work of the Yorkshire and Lancashire forwards. The result of the match is regarded as a great triumph for the old Rugby Union, as it clearly indicates that in spite of the split, there are still left plenty of good players of the highest class in the North, who have not bowed the knee to Baal.

We much regret to note that a team of Rugby players, styling themselves "Oxford University," is touring in France, and that it has suffered defeat on more than one occasion. There would be no harm in it if the "Varsity" men would be good enough to play as "Oxford Casuals," or at least if they would adopt some title which would show clearly who and what they were. It is by no means satisfactory for a scratch team like this to cross the Channel, sail under false colours, and then get beaten time after time. We have not seen the French sporting papers, but we have not the slightest doubt that the victories of the Parisian clubs over "Oxford University" have been triumphed over in orthodox French fashion. Let Oxford send a representative team to Paris by all means, and then we shall be very much surprised, though we should not grumble, if that team were defeated, but the present arrangement seems to us to be decidedly damaging to Oxford, if not to English, football prestige.

The female cycle races at the London Aquarium having paid well, the thing has been given a trial in two of the large provincial cities, Birmingham and Sheffield. What the financial results have been at these places we are not aware; we trust they have not been good. We saw the racing at the Aquarium, and also at Bingley Hall, and thought the exhibition a very sorry one at both places. Real racing was impossible on the small tracks which the limited space available in covered buildings necessitates, and the whole business we regarded as a most palpable show. "Cycling Circus" would be a much more accurate title for the performances. Some of the women rode very well under the circumstances, but when the competitors (?) got tired they did not look nearly so smart as at the beginning of the races, and the effect was in short anything but edifying. We hope we have seen the last of it.

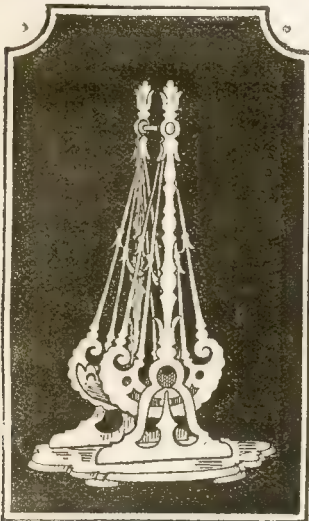
It is said that the traffic over Brooklyn Bridge, New York, is greater than that of any other bridge in the world. We are not prepared to vouch for this, but one item of that traffic, that of cycles, is well known to be very large. A 2 cent. toll has been demanded of each wheelman who has taken his bicycle across the mighty span. An agitation to reduce this toll to 1 cent. has just proved successful. The cycling petition in favour of the reduction was 65 feet in length. There are very few bridges in England where a toll is demanded from a cyclist. Clifton Suspension Bridge, and a bridge over the Wye at Whitney, near Hay, are the only ones we can call to mind at this moment.

Several contradictory statements have appeared relative to the building (or otherwise) of an indoor covered cycling track in London. The *Cyclist* is now able to state definitely that such a track has been duly arranged for, and is shortly to be erected at Olympia, Kensington. It is to be of the usual boarded variety, well banked, and nine laps to the mile. Our idea is that unless a larger track than this were possible, it would have been better to have left the scheme alone. With modern speed rates, racing on a track only 200 yards in circuit can never aspire to anything much superior to the hippodrome. The less circus business we have in connection with cycling the better it will be for the sport. Another and slightly larger track is promised at the Agricultural Hall, Islington.



No. 12. SWING BOAT MATCH HOLDER.

MOST of us have at some time or other patronised the popular Swing-Boat at fairs or markets, and the Design which is presented with this week's *Hobbies* may in a small way remind us of past enjoyments.



The Match Holder is intended to be an ornamental model of the well-known Swing-Boat, and should be constructed with this aim in view. Unless made to swing in a natural way, much of its novelty and attractiveness will be lost, and in fitting together it is worth while to take some extra pains to execute this part of the work neatly.

The Stand and Toes should be of $\frac{1}{4}$ -inch wood, and the Supports of $\frac{3}{16}$ -inch. The Swing-Boat itself may be of $\frac{3}{16}$ -inch, but $\frac{1}{4}$ -inch is sufficiently thick, and will give a daintier effect. Three-ply wood should be used for the swinging Sides, but solid material may be taken for the other parts. Certainly, the Supports will stand better if cut from solid wood, as a long, narrow strip of Three-ply occasionally shews a tendency to twist.

Two varieties of wood may with advantage be selected:—white wood for the Swing-Boat proper, and a darker colour for the Supports and Stand.

In fitting up, great care must be taken to have the Supports perfectly vertical, and when accu-

acy is secured, they should be firmly screwed to the Stand. The Toes may be glued on or screwed from below.

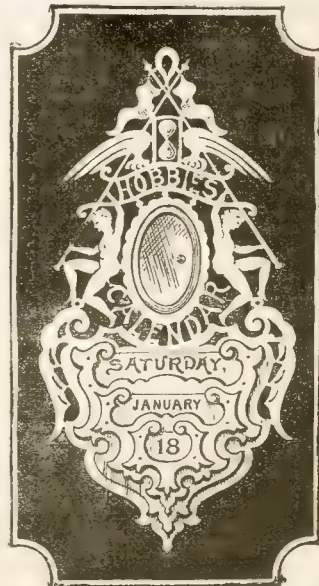
The Swing-Boat Holder, being rather delicate, requires neat fingering in putting together. The principal point to notice is that both sides correspond exactly, and are directly opposite to each other. If this is otherwise, the article will swing sideways. The dotted lines on the Sides shew the position of the Match Box Ends and Bottom. These may be glued on, and fixed either with pin points or with small round-headed brass screws.

There need be no real difficulty in hanging the Swing-Boat, but great care is required. The Spindle must be smaller in diameter than the holes through which it passes, so that the Holder may swing freely. When fixed firmly to the Supports it will hold the article well together. The little inside Washers of the Spindle prevent the Swing-Boat from rubbing against the Supports.

Two pieces of fine Sandpaper, glued to the Stand as shewn on the Diagram, will serve as match strikers.

[Additional copies of this Design may be had, price 3d. each, on application to the Publisher of *Hobbies*, Bouverie House, Salisbury Square, London, E.C. The Presentation Supplements will be given during the current week of publication only, and will not be supplied with back numbers of *Hobbies*. All additional copies of the Designs will have the Threepenny Coupons, which are available for three months after the date of issue.]

No. 13. CALENDAR.



The above sketch is a miniature of the full-sized Pattern for a FRETWORK CALENDAR, which will be given away with each copy of next week's issue of *Hobbies*. We shall arrange that suitable Mirrors and Printed Cards for the Calendar may be had from the Editor at a small cost.

WOOD CARVING FOR AMATEURS



CHAP. IV.

HOW TO SHARPEN AND PRESERVE TOOLS.



It is only necessary to tell a *beginner* that all Tools should be well taken care of. Experience soon impresses the worker with this very important point. When it is discovered that a Tool will only do good work when it is sharp as a razor, that sharpening is a tedious process, and that any carelessness will soon blunt the edge; when it is found out, also, that as skill is gained and more advanced work is taken up new Tools are necessary, and that these cost money, no Carver will trifle with the Articles and knock them about as if they were stone-masons' Chisels. Sharpening is a daily duty; the Strop, indeed, must be used hourly.

This, however, need not discourage anyone. An artist's pencil must be kept with a good point, and in the pursuit of any work where Tools are required (and when are they not?) these must receive constant attention.

GRINDING.

The Grindstone will not be required often, if the Slips and Strop are well used; but with ordinary wear and tear, especially if hard wood is being carved, edges are bound to go, and a little grinding becomes necessary. Plenty of water should be used, or the steel will get hot and thus ruin the edge. The Tool should not be kept in one place on the stone, as that would produce a rut, and when ruts are once permitted, the stone will soon wear away. With Gouges, Fluters, etc., it is necessary to keep them in motion, working from side to side, so that the grinding may be perfectly equal. The stone—it is almost needless to say—must be turned *away from* the Tool. It should be turned as quickly as possible, in order that the greatest amount of power may be obtained. The frame ought to be screwed or clamped to the bench, as otherwise it would move about in a helpless manner.

Amateurs who have a treadle Fret Machine or Lathe, with an Emery wheel attached, will find it useful where light grinding is required.

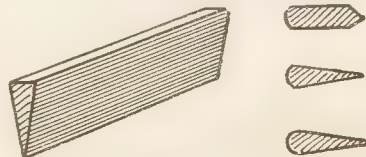
SHARPENING.

The next Article to employ is the Washita Hone,—or rather, Slip. This can be had for the

matter of a shilling, and should be lubricated with olive oil. It may safely be said that all new Tools require sharpening. Possibly they are guaranteed as ground, stropped, and ready for use, but the assertion need not be taken too literally. As a rule, they are ready for the Washita Slip, but for no further advanced stage. To test the point, however, they could be run across a board of waste wood, and if the edge is sharp and true, a mere stropping would be sufficient.

With Chisels and Skews, the Slip may be laid on the bench, but with all other Tools it is recommended to keep it in the hand. There may, of course, be exceptions, but the rule should be adhered to so far as possible. The Tools should be held in the left hand, with the points raised upwards, the Slips being held in the right, and being carefully but firmly worked *up and down*,—not back and forward. All blades which are curved in section should be swung gently from side to side in order to keep the edge even. The rougher parts must receive greater pressure, but care should be taken to leave the bevel quite free from ridges and angles, as these have a bad effect on the work. The Slip should be held in such a way that accidents may not happen to the fingers. Carving Tools are capable of giving nasty cuts, and these should be avoided if possible, not only on account of the immediate unpleasantness, but because Tools can never be held properly in a bruised hand. There need be little risk, except through sheer carelessness.

The Washita Slip must only be used for the back of tools; and for very delicate Veiners, the finer Slips only should be taken. It is always advisable (though not a case of absolute necessity) to sharpen both edges of Tools, as they can then be used either way. For the inside, tiny Slips must be selected; a set of four Arkansas ones, such as in the illustration, can be had for three-



ARKANSAS SLIPS.

and-sixpence. Broken bits may often be had cheap, and are very useful. Almost every Slip requires "doctoring," and the inside of a Tool is better left alone if the Slip cannot be made to fit it exactly. The Arkansas Slips, as the sections shew, are practically ready for use; but other pieces of stone or slate require to be rounded with Glasspaper so that they will go neatly into the hollow of the Gouge or Fluter. A very fine paper should be used for finishing the Slip, as it is necessary to have it perfectly smooth. The Slips should be worked carefully up and down, not too quickly, and must be kept almost flat. In sharpening, a point to guard against is holding either the Tool or the Slip at a noticeable angle. In some cases it is better to tackle the inside before the back, but this may be as found desirable. It is, however, often necessary to give the back another rub, in case of any fraying. Veiners require a great amount of patience, and a good deal of practice, before they can be given a keen edge. V-Parting Tools are worse, but with them, as with all others, perseverance will bring success.

STROPPING.

The last task is stropping. The Strop should be a flexible one, such as a barber's, as it is wanted for the hollow as well as for the back of a Tool. It is prepared with tallow and emery, and a good one should be secured for eighteenpence. Every man knows how to strop; but to ladies it might be explained that the Tool is quickly swept back and forward along the leather, being held almost flat. A quick movement is better, and the Tool should be held firmly, with the forefinger on the blade. For stropping the inside hollows, if the leather is bent over a pencil, it should fit fairly well. The finger might be used for the larger Tools. Veiners and V's must be rubbed on the leather edge. If the Strop is frequently used, the Tools can be kept in a far better condition, and sharpening with Slips will be much easier. Before Tools are applied to the Strop, any oil, which is on them after being rubbed with the Slip, should be removed. The Strop should be kept free from dust when not in use; and the Slips should be regularly cleaned, or they will soon become greasy and ineffective.

When a Tool has been sharpened, the best way to try the edge is to run it across a board of common wood,—Pine, if possible. If it cuts clear and clean, it is right; but any inequality should at once be attended to, for it is only natural that a Tool which will not cut a random straight line will refuse to do good Carving work.

All new Tools are not only awkward to use, but troublesome to sharpen. Carving Tools are like colour brushes; the older they get, and the more they are used, the better work can they do. A Carver becomes attached to a Tool as he does to a pet animal; he knows exactly what it can do, can trust it in every emergency, and when it is worn to the last inch and has to be laid aside, he is ready to drop a silent tear over the loss of a good old friend.

The best Carvers are the most particular in carefully preserving their Tools. When at work, they should all be kept in a row, the points in one direction; and when the day's toil is over, they should not be placed in a box, but in some woollen cloth case made specially for the purpose. Green Baize cases, furnished with inside

pockets, can be bought for three or four shillings, but a suitable one could easily be made at a third of that cost. Care should be taken never to let the points knock against each other, or chipping will be the certain result.

In sharpening Tools, practice and custom bring skill which enables the worker to defy all ordinary rules and regulations; but these hints are, of course, for the uninitiated, and it is better to try and follow out a definite plan until real adroitness is required.

(To be continued.)

FRETWORK & CARVING.

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—GIVEN AWAY.—

With this New Edition of 20,000 copies, we shall present a finely finished pattern of the Crescent Wall Bracket.

HARGER BROS., Settle, Yorks.

"HOBBIES" COUPONS ACCEPTED.

JOHN GREEN, F.R.H.S.,

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JOHN GREEN, F.R.H.S.,

NORFOLK NURSERIES,

DEREHAM.



All communications to be answered in these columns should be marked "Correspondence," and must be addressed to the Editor of *Hobbies*, Bonverie House, Salisbury Square, London, E.C. In no case can we reply to enquiries by post.

BOOKBINDING.

W. MARTINS.—Try *Bookbinding for Amateurs*, by W. J. E. Crane, 2/6, published by Upcott Gill, Strand, London.

ELECTRICITY.

H.E.H.—You require 26 large-sized chromic acid cells connected in series. You can make these from the directions given in No. 2 of *Hobbies*.

H.K. AND A.E.S.O.—Probably the reason why the paste will not hold is because too great a current is supplied; to remedy this only lower the battery elements half way into the acid. Do not attempt to use anything in place of the red lead and litharge.

VOLTAIC.—Dry batteries may be revived by passing a current through them; but we should want to know the type before giving a definite reply. You might try pitch for making accumulator cells; we do not see any objection to it.

F.J.P.—We are pleased to hear that the accumulator acts so well. It certainly is rather weighty, and may be considerably lightened by making the case and contents about two-thirds the size; and, further, by making the plates thinner.

D. ALDERSON, JUN.—You cannot use permanent magnets in place of electro-magnets for motors. The why and wherefore is too lengthy a subject to be explained here; but when electro-motors are dealt with, you will understand electro-mechanics better than you do at present.

PRO AND CON.—You do not require any fixed core for a "solenoid," which is the technical name for your apparatus. Wind the bobbin with No. 18 B.W.G. silk-covered wire; diameter of finished coil, $1\frac{1}{2}$ inches. Current required, about 50 volts at 2 amperes.

FRETWORK, CARVING, &c.

H. PORTER.—Your question as to putting fern leaves on Fretwork is not clear. Can you explain?

J. CLARK.—In the catalogues of Fretwork dealers you will find many designs where Inlaying and Overlaying are introduced. From time to time we shall give away such patterns with *Hobbies*.

T. HYETT.—1. White Seamore is a better substitute for White Chestnut than Canary Wood, the latter being rather yellow in tint and of a more open grain. 2. It is not easy to get a substitute for Orange, but you might try Satinwood. 3. Lacewood is of a brownish-yellow colour; in figure it is richly mottled like Plane tree, and has the appearance of lace-work, from which, of course, it takes the name.

W. LLEWELLYN is anxious to know if in the Victoria Fretwork Competition the First Prize will be awarded to the Model which is lined or padded inside; painted, lined, and polished; fitted with steel springs, iron tyres, etc. Certainly no preference will be given to such an article. What we ask for is a *Fretwork* Model, and one made from the Design presented with *Hobbies* No. 10. 2. It would not be fair to compel competitors to use certain woods fixed upon by us.

HOBBIES THAT PAY.

A. DURANT.—All the subjects which you refer to will be taken up in due time. You can now obtain *Hobbies* Nos. 1 and 2 from our publishers.

PHOTOGRAPHY AND LANTERNS.

T. G. FENWICK.—The "Guinea" Hand Camera is made for 6 quarter plates. The "Tit-Bit" also has 6-quarter plates, and would cost you 28/- Either of these will answer your purpose we should think. You will not get a hand camera giving 10 exposures for 20/- Both those we name can be purchased of Fallowfield and many other dealers.

WM. GOODSLIP.—There was a cheap pinhole Camera called the "Photocinibus," sold by a firm at Sutton for 2/6, but we have lost all trace of them. Perhaps these few lines will be seen by someone knowing their whereabouts. Adams & Co. sell a pinhole lens which can be adapted to any camera. You could easily make such a camera, and we will early in the year give full particulars.

P.J.L.—1. Make a lather of soap and water, and brush over the seams; the leak will soon blow out a bladder. To repair, get a piece of sheet gutta percha, such as is used to cover telegraph or telephone wires, and fix over leaky place with rubber cement, slightly warming the gutta percha first. 2. Certainly you can use a blow through jet—the two gases mix in the former jet at the point of ignition, in the latter there is a mixing chamber.

G. T. HARWOOD.—Your slides are very creditable for a beginner. They are a little thin, and would suit an oil lantern better than limelight. 1. The straight line of the wall rather spoils his picture; the children are well grouped. 2. A capital slide, and very good soft tone. 3. You have been too close, and have lost all motion in the water. 4. This is the best. If at the start you can do such good work, we are sure you will make a useful member of the Lantern Slide Exchange. Metal binders can be bought of almost any dealers. We do not recommend them. They soon get loose and stick in the carriers.

VINE.—We have a note before us which answers your question, although we have no practical experience of the same:—"Ferro-prussiate prints acquire black tones by treatment with a solution of silver nitrate, followed by development with iron oxalate. The print, fixed and washed as usual, is placed in a solution of silver nitrate, in which it is left until it has bleached, when it is placed in the developing solution." The same authority continues:—"If, after development, it is placed in a solution of hypo, the black tone will tend to disappear, passing back to the blue stage. Thus, with a little care, a print may be obtained in which the deep shadows are black, while the half-tones are blue."

F. BLAKEY.—Yes; the objective of a lantern lens might answer your purpose, but you may use the same lens that you have in the camera. You can test a lens by noting the definition of lines upon the focussing screen, the absence of falling off or haze at the edges of the plate, and the flatness of the field. This can all be done in the camera, and the effects noted as seen upon the ground glass. If you can darken a room all but an aperture sufficient to insert your lens, you can commence enlarging at a very trifling expense. We shall hope soon to have some few chapters on Enlarging. Why not get the book "Practical Enlarging," by John A. Hodges, 1s. 3d.? Our publishers will send it to you on receipt of stamps.

H.K.—It will be much better for you to buy plates than to attempt to coat them. But here is Captain Abney's formula. Of course, each plate maker has a special formula, the ingredients of which are jealously guarded. The following will only give you the component parts of a sensitive emulsion. For the method of its preparation and subsequent "cooking"—in which the rapidity of the emulsion is much concerned—we would refer you to "Emulsion Process in Photography," by Captain Abney. To make an emulsion weigh out:—

- | | |
|---|-------------|
| 1. Potassium Iodide | 5 grains. |
| 2. Potassium Bromide | 135 grains. |
| 3. Nelson's (No. 1) Photographic Gelatine | 80 grains. |
| 4. Silver Nitrate | 175 grains. |
| 5. Hard Gelatine and No. 1 equal parts | 240 grains. |

A very interesting account of Emulsion Making is given in Abney's "Instruction in Photography," which you should certainly purchase.

JOHN GOURLEY.—It would not be possible to project slides with a screen 50 feet from the lantern using the incandescent gas burner. We advise "warm tones," and can vouch for the following formula (Paget's plates):—

SOLUTION I.	SOLUTION II.
Hydroquinone $\frac{1}{2}$ oz.	Caustic Soda . . 1 oz.
Sulphurous Acid $\frac{1}{2}$ oz.	Sodium Sulphite $2\frac{1}{2}$ ozs.
Potassium Brom. 60 grs.	Water to . . . 20 ozs.
Water to . . . 20 ozs.	

SOLUTION III.

Brom. of Ammonium . . . 1 oz.
Carb. of Ammonium . . . 1 oz.
Water to 20 ozs.

To secure a "brown" line give an exposure of 60 secs. one foot from gas flame. In use take of No. 1 $\frac{1}{2}$ oz., No. 2 $\frac{1}{2}$ oz., No. 3 100 minims, and add water up to 2 ozs. The slide should be fully developed in about five minutes.

STAMPS.

NOVICK.—The firm you mention are to the best of our knowledge thoroughly reliable.

C.L.S. may clean any of his old English stamps, that have got dirty through constant fingering, by going over them with a wet camel's hair brush.

A.I. (Goldsbro').—Your No. 1 has no plate-number; No. 2 is plate 130; No. 3, plate 86; No. 4 is a 1d. English draft Stamp, and should be placed in a postage stamp album.

GUIANA (Selly Oak).—The 2c. yellow British Guiana, sold at auction for £9 5s., was a rare stamp of an early issue. Yours is very probably the 2c. yellow of the current issue, which is worth about a halfpenny.

H.G. (Ayr).—We should much like to see your Dutch Indies, with defective "D." Minor varieties of this sort are being very closely studied now by advanced philatelists. If you will send your specimen, we shall try to find space for an illustration of same.

T.W. (Highgate).—Your Barbadoes should be worth 1/- the four; your New Zealand we could not possibly value without inspection. It might be rare. The Bavarians are worth 1d. or 2d. apiece, according to condition. The stamp that puzzles you so much is a Hungarian newspaper stamp.

W.W.W. (Glasgow).—The "Ideal" gauge is published by William Brown, St. Thomas' Square, Salisbury, at 6d., post free. A new gauge, the "Exact," of which we hear very good accounts, has just been brought out by Hilckes & Co., Limited, 64, Cheapside, London. (2) The cheap sets of Bergedorf sold by the dealer you mention are reprints and quite worthless.

J.W.P. (Middlesboro').—Send to Stanley Gibbons, Limited, 391, Strand, or Whitfield King & Co., Lacey Street, Ipswich, for their price lists of packets. A packet of 250 varieties (costing about 3/-) will give you a very fair start. After that get sheets on approval from some respectable firm, and keep your eye open for sheets of stamps in newsagents' shop windows. Then, if you are in any difficulty, write us again.

MISCELLANEOUS.

MOSES.—Ceramic Mosaic work is a hobby which we hope to have some articles on at a later date.

FRED HALFORD.—We shall publish bindings for the half-yearly volumes of *Hobbies*.

ARTHUR MARSTON.—We do not know of any handbook on Clockwork Model Locomotive Making, but will be glad to hear if any readers of *Hobbies* can tell us of such.

S.O.—We do not know of any book on the subject you mention. We hope to deal with some branches of Caric Collecting by-and-by.

'Hobbies' Designs.



WING to the very heavy expense involved in the production of the Designs forming our Weekly Presentation Supplements, we cannot supply these with back numbers of *Hobbies*. Copies of them may, however, be obtained on sending *threepence* for each Design required, to the Publisher of *Hobbies*, Bouverie House, Salisbury Square, London, E.C.

For the convenience of our readers we give below a complete list of the Designs already published.



No. 2. "APHRODITE" BRACKET.

1. Midget Photo Frame, with Overlay Ornament.
2. "Aphrodite" Mirror Bracket.
3. Bent Iron Work Gong Stand.
4. Hanging Twine Box, with Overlay Ornament.
5. "Card" Inkstand.
6. Carved Adams Frame.
7. "Gasalier" Bracket.
8. Bent Iron Work Table Stand, for Cards, etc.
9. Carved Lamp Bracket.
10. Model of a Victoria.
11. "Toilet Glass" Cabinet Photo Frame.
12. "Swing-Boat" Match Holder.

The following Designs are in preparation—

13. Hanging Fretwork Calendar.
14. Bent Iron Work Grill Panel.
15. Carved Blotting Book Cover.
16. Prize Card Receiver.

NOTE.—The Patterns not otherwise designated are Fretwork.



A CHILDREN'S EVENING WITH THE LANTERN.



Our recent sketches of "Lantern Lectures in a Village," Part 2, we shortly sketched a "Children's Evening," and will now give our views of how such an entertainment should be conducted.

We venture to suggest "Alice in Wonderland" as the *piece de resistance*. This delightful story, by Lewis Carrolle, is familiar to most children, and the illustrations by Sir John Tenniel are unique in themselves. We believe that more than one firm of Lantern Slide Makers have brought out a set of Slides to illustrate the book. Be this as it may, we venture to think that a polite letter addressed to the publishers,

Messrs. Macmillan & Co., asking for permission to copy the illustrations for the purpose of making Lantern Slides, would not be refused.

The illustrations are admirable, and would make most perfect Slides. If any lady or gentleman could colour the Slides, the young folks would be better pleased, but unless it can be done well, leave the colouring alone.

The story is not a long one, and our suggestion is that it should be shortened for the purpose of the "Children's Evening," and that some half-a-dozen children be taught to fully describe each picture as it is shown on the screen: not in parrot fashion, but as they would explain the picture to one another. They should take alternate pictures, and, for this reason, must all be well coached up. As the Slide is thrown on the screen a few bars of music may be played, and sufficient time given for the audience to see the picture and for the young folks to express their appreciation. The music gradually ceasing, the child gives her description of the picture, and at the finish the piano is again brought into requisition, and so on.

We should like to say that there should be ample time for the playing of a few bars of any well-known airs, but in this exhibition music is only a handmaid, and not a principal, so it must be kept well in control.

We have looked carefully through the story, and will give some of the passages that should be illustrated, and which are covered by the pictures in the book itself. It will be remembered that, briefly, the story tells how Alice saw a bottle with the label—"DRINK ME," and a little glass box, which had in it a very small cake, on which were the words—"EAT ME." The result was that the effect of one was to make her smaller, and the other to make her larger.

We introduce Alice with the following:—(1) "Now I'm opening out like the largest telescope that ever was!"—and will give other titles for pictures:—(2) "The Rabbit started violently, dropped the white kid gloves and the fan, and skurried away into the darkness as hard as he could go." (Here would be an opportunity for one of the children to give Alice's version of "How doth the little, etc.," which, sung to the tune of any nursery ditty, could be joined in by all the other children.) (3) "Mouse dear, do come back again, and we won't talk about Cats, or Dogs either." (4) The Dodo asks Alice,— "What else have you got in your pocket?" (5) "Alice's idea of the Mouse's tale." (6) "Why are you not attending, what are you thinking about?" (7) "She concluded that it was just possible the Rabbit had fallen into a cucumber frame." (8) "An enormous Puppy was looking down at her with large round eyes, and feebly stretching out one paw trying to touch her." (9) "The Caterpillar and Alice looked at each other for some time in silence." 10, 11, 12, will illustrate the verses:—"You are old Father William, etc.," which may be recited, soft music being played as an accompaniment. (13) "The Fish Footman." (14) "Even the Duchess sneezed occasionally, the Baby was sneezing and howling alternately, etc." (15) "It was neither more nor less than a Pig." (16) The Cheshire Puss who says—"Now I growl when I'm pleased, and wag my tail when I'm angry." (17) "But a grin without a Cat." (18) "The Hatter opened his eyes very wide on hearing this." (19) "It goes on, you know, the Hatter continued." (He is reciting a parody on "Twinkle, twinkle, little

Star." The air may be played whilst this Slide is being shown.) (20) "Trying to put the Dormouse into the teapot." (21) "Look out now Five, don't go splashing paint over me!" (22) "Then followed the Knave of Hearts carrying the King's crown." (23) "Dispute going on between the Executioner, the King, and the Queen." (24) "Oh! 'tis love, 'tis love, that makes the world go round." (25) "They very soon came upon a Gryphon." (26) "Drive on old Fellow!" (27) "The song of the Mock Turtle." (This might be sung to some simple air.) Alice's refrain, "'Tis the voice of the Lobster," may be recited, and Mock Turtles song, "Beautiful Soup," may be sung by the children to the tune of the well-known "Beautiful Star." (28) "Herald read the Accusation." (Which is a parody upon the nursery rhyme, "The Queen of Hearts.") This may be sung. (29) "The wretched Hatter trembled." (30) "The Hatter hurriedly left the Court." (31) "She tipped over the Jury box." (32) "Why, there they are!" pointing to the tarts on the table. (33) "You're nothing but a Pack of Cards."

Such are the principal subjects or titles of the pictures. To make the exhibition go well, there should be no reading. The children must be taught to know the part of the story that each Slide depicts, and the interspersing of the few verses and songs will make the "show" much more popular.

"Alice in Wonderland" has, we believe, been dramatised, and was played as a Christmas piece at one of the London theatres. The book could possibly be obtained of French, the theatrical bookseller in the Strand, and would be helpful in getting up the exhibition.

For the second part we would recommend any of the following sets of Slides, which can be hired of any dealer in Slides:—

Cock Robin (8), Dick Whittington (8), Blue Beard (12), Hop o' my Thumb (9), Puss in Boots (12), Beauty and the Beast (8), Little Red Riding Hood (8), Jack the Giant Killer (8), Jack and the Beanstalk (8), Babes in the Wood (8), Tipoo, a tale of the Tiger (38), etc.

These would all amuse the audience at a "Children's Evening," and if the same plan is adopted of letting children tell the story, we are quite sure much more pleasure will be given.

Don't on any account keep the Lantern going more than half-an-hour without a rest. Let the gas be turned up and your audience have five minutes' talk, or let the children join in one of the pretty school songs or part songs, or, better still at this season of the year, a good old-fashioned English Carol. Children love to sing; it is as natural to them as it is to the birds; don't check them, especially when giving a Children's Evening. In the second part, between the sets of Slides, put on a Carol or a Nursery Rhyme. Make the Slide yourself, or get a good fellow like Mr. Bend-at-Will to make it for you. There are always such willing men to be found.

If "Alice in Wonderland" is beyond your capability, get 50 Slides,—views of London, animals in the Zoo, well-known seaside places, portraits of members of the Royal Family. Know all about your Slides yourself, and then ask questions of the audience as each Slide is put upon the screen. Much amusement is to be got out of the mistakes,—the bows drawn at a venture. We remember giving a Lantern show of this kind to about 1,500 of the very poorest class in Deptford, and we were quite amazed to find how much the good folks knew, and how greatly they appreciate the beauties of nature. The projection of a few microscopic Slides is generally a puzzler. For instance, the tongue of a blow-fly shown on a 12-feet screen and occupying the whole field of the Slide is something to be amazed at, and calls forth as many "Oh's" as fireworks at the Crystal Palace. Cats and Dogs are always prime favourites. We have a Slide of a black and white Kitten sitting in a hat, which pleases old and young; this is followed by "Pussy's Friend" (a microscopic Slide of the domestic flea), which, when explained, provokes much laughter. In winding up, an audience are always to sing "God save the Queen." See you have a Slide with the words.

(To be continued.)



MAGIC LANTERNS & SLIDES.

The best and cheapest house for the purchase (hire or exchange) of lanterns and slides. Walter Tyler, 48, Waterloo Road, London.

Walter Tyler's new pattern helioscopic lantern is far superior to any other lantern at the same reasonable price. The demand has been so great that new machinery has been made for their production, and helioscopes can now be delivered on receipt of order. Walter Tyler, 48, Waterloo Road, London.

Oxygen and hydrogen of the very best quality, compressed, in thoroughly tested and annealed cylinders, at a much cheaper rate than any other firm can supply. Special low terms for large consumers. Walter Tyler, 94, Waterloo Road, London.

Selling off a large quantity of second-hand single binials and triple lanterns. Call and inspect immense stock. 50, Waterloo Road, London.

Hire department is perfect. Best quality slides lent on hire cheaper than any other house. Walter Tyler, 48, Waterloo Road, London.

Walter Tyler's new catalogue, upwards of 500 pages, fully illustrated, now ready, post free, 12 stamps; smaller catalogue, 6 stamps; and second-hand lists, post free. Walter Tyler, 48, Waterloo Road, London.

WALTER TYLER,

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NOTE.—Trade Advertisements can only be inserted in this page at the rate of one shilling per line.

Brown Leghorn Cockerels, Lister-Kay, 4/-, 5/- Approval.—Miss Tawke, Hockley, Essex.

Camera, $\frac{7}{8}$ by 5, 6 dark sides and $\frac{1}{2}$ -plate carriers, good lens with stops, shutter, printing frame. Lot 30/-, cash.—Mr. Quant, Chesterfield Road, Matlock Bank.

Electric Bell, quart Leclanché battery, push, 50 ft. wire, staples, instructions, complete set, 4/6. Better value impossible. New catalogue, stamp.—Electric, Lord Street, Openshaw, Manchester. E. 4.

Electrical Hobbies.—Write for New Enlarged List; will just suit you; prices low; best quality.—Electric, Lord Street, Openshaw, Manchester. D. 2.

Electrical Coil and Battery.—Splendid instrument, approval, 5/.—Walker, 2, Chetwynd Street, Leeds. D. 4.

Ferrets.—Best White Ferrets, 4/6 each.—F. Stepney, Ewhurst Rectory, Hawkhurst.

Fretwoods, $\frac{1}{2}$ inch American Canary, 3½d. per foot; Teak, Mahogany, 4½d.—T. Carter, Lichfield. H. 1.

Fretwork.—Treadle Fretsaw, Windsor, good as new, cost 21/-, will sell for 15/.—Hunter, 56, Whiting Street, Bury St. Edmund's.

Guinea Pigs Wanted. Exchange handsome young crossbred collie sheepdog.—Bond, Battle.

High Class Tools.—For New Illustrated Price List, send 3d. to Osborn Brothers, Tool Merchants, 48, Frattton Street, Portsmouth. M. 7.

Lady's Pneumatic Safety, with latest improvements, gear case, dress guard, lamp, accessories. Approval anywhere. Scarcely soiled. Cost £16; immediate purchaser £8 17s. 6d.—Miss King, 90, Hungerford Road, Camden Square.

New Book of Instructions in gilding, graining, mixing paint, French polishing, picture-frame making, mount cutting, etc., 1,000 valuable recipes, free, 1/2.—McQuhae, Cockermouth, and all Booksellers. L. 1.

Piano, semi-grand, by Broadwood, £4 15s., or nearest cash offer, perfect tone and condition, carriage paid. Seen any time.—Watkins, 12, Warwick Terrace, Church Lane, East Finchley.

Postage Stamps.—Wanted, Collections of Old Stamps, English or Foreign. Double face value paid for obsolete unused English.—Direct Cash Trading Company, 132, Queen Victoria Street, London, E.C.

Small Pet Monkey.—What offers exchange? or sell 25/.—Wilson, clothier, 277, Eglinton Street, Glasgow.

Stamps.—Collection 600, sell best offer; also Camera, 3/-, or offer.—A. E. B., West Malling.

Stamps.—3d. Cash and one *Hobbies* Coupon for every 6d. worth from my Duplicate Stamps; sheets on approval; reference required.—Cooke, Hick Street, Birmingham.

Stamps.—Collector's duplicates. Sheets sent on approval. All stamps 3d. each. Williams, Belle Vue, Harrow.

Stamps.—St. Lucia, Bermuda, Trinidad, Tobago, Natal, Fiji, Haiti, Guatemala, Siam, Peru, Paraguay, Chili, Cuba, Mexico, St. Pierre et Miquelon, Brazil, Tunis, Transvaal, Venezuela, Western Australia. Only 1/.—Henry Box, 23, Elcot Avenue, Peckham.

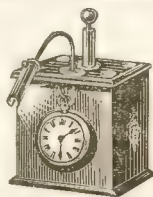
Stamps.—Would be pleased to send on approval selection of rare stamps. References.—Harold Brown, Friar Lane, Nottingham.

Wanted, No. 3 Remington, nearly new. State lowest price.—Mrs. F., 97, Philbeach Gardens, Earl's Court, London.

2/6 Collection of Bulbs, 6 Hyacinths, 24 Crocus, 12 Single Tulips, 12 Double Tulips, 12 Narcissus, 12 Snowdrops, 12 Daffodils, 12 Iris, 12 Anemones, 12 Star of Bethlehem, 12 Wood Hyacinths, lot 2/6, as an advertisement of our Bulbs.—Theodore Turner, Great Sutton, Chester. C. 3.

50 Stamps, all different, post free, 3d.—F. Sweet, Over Wallop, Stockbridge. B. 1.

XMAS GIFT.



Genuine Electric Lighting Watch Set. Just the thing for dark nights and winter mornings. Lights instantly. Two powerful Batteries and handsome Brass Fittings. Will not get out of order. Price 7s. 6d., post free.—H. PRICE & Co., 4, Berry Street, Clerkenwell Road, E.C.

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Three Months (including postage)	1	8
Six Months Do.	3	8
Twelve Months Do.	6	6

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TERMS FOR ADVERTISEMENTS.

	£	s.	d.
Per Inch	0	10	6
One-Eighth Page	1	1	0
One-Quarter Page	2	2	0
Half-Page	3	15	0
Page	7	0	0

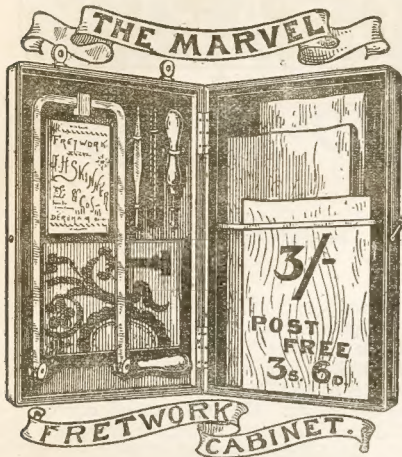
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JOHN HADDON & CO.,
Bouverie House, Salisbury Square,
London E.C.

*. As we are obliged to go to press about ten days before the nominal date of publication, Advertisements must be received at our Office on Wednesday morning to ensure insertion in the following week's issue.

FRETWORK.



A SPECIAL OFFER TO BEGINNERS.

We wish to induce all who have not yet taken up Fretwork as a recreative pastime to give the work a trial. It is an occupation which may be easily learned by anyone, and there is no recreation which yields such excellent results for so small an expenditure of time and money. We are therefore specially making

1000 FRETWORK CABINETS

which we will supply at the extremely low price of 3/- each, or post free 3/6, which is far below their real value. The Cabinet is well and strongly made, and is stained and varnished. It has brass fittings, and contains a 12-inch Steel Fret Frame of our own make, one dozen Best Saw Blades, a File, a Bradawl, and three Fretwork Designs, with sufficient planed Fretwood. Instructions are also sent. We are giving in these Cabinets exceptional value with a special object, but if any purchaser is not perfectly satisfied, he may send the Cabinet back carriage paid, in good condition as received, and his

MONEY WILL BE RETURNED.

Full particulars of more expensive tools will be found in our new Illustrated Catalogue, which will be sent post free for Sixpence, together with a Presentation Fretwork Design of the Clock Tower of the Houses of Parliament (Big Ben), which is published at 1/-

Send 6d. for Catalogue and Presentation Design.

J. H. SKINNER & CO.,
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THE SWAN FOUNTAIN PEN.

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"Yes, if the fact is of any consequence, you are very welcome to say that I wrote the 'MANXMAN' with the Swan Fountain Pen. It has become quite indispensable to me. I can use it with ease and certainty anywhere, and at any time, even in the dark, in bed, and on horseback.

HALL CAINE."

We only require your steel pen and handwriting to select a suitable pen.

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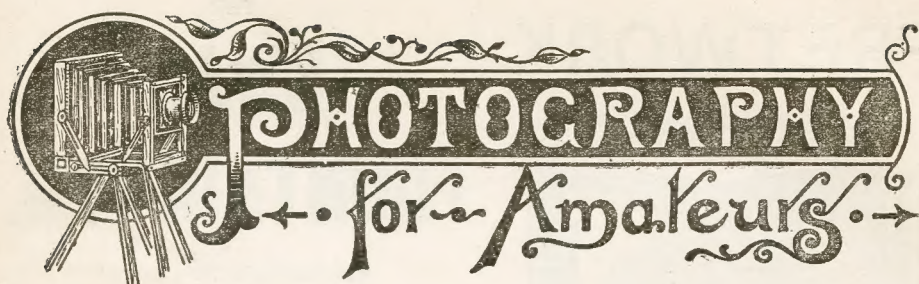


REDUCED FAC-SIMILE.

OTHER TESTIMONIALS.

From MR. RICHARD PENDEREL.—Five hundred thousand words have been written in fifteen months with one "Swan" pen, and without the slightest evidence of wear in the pen.

From THE ARCHBISHOP OF YORK, Coatham, Redcar.—Though I have only had your pens in use for a month, I must write a line to say how intensely grateful I am to you for bringing them to my notice.—Yours very gratefully,
W. D. DALRYMPLE MACLAGAN.



PHOTOGRAPHY

for Amateurs

NOTES OF THE WEEK.

OUR LANTERN SLIDE EXCHANGE SCHEME.

THE prospects of *Hobbies* "Lantern Slide Exchange" look most promising. We have received the following letter from Mr. James Bayle, jun., who has been doing something towards the formation of an Exchange. He writes:—

"I read with pleasure your kind offer of Slides, and shall be pleased to render any assistance I can. I enclose a set of rules, and shall be pleased to accept post of Secretary. I have spoken to several gentlemen who would be pleased to join, and propose that we transfer our members (8) to the *Hobbies* Society, and that that Society take over our printed matter. I think a Lantern Slide Exchange in connection with *Hobbies* would be a decided success.

The following is a copy of the proposed rules:—

1. That there be not more than 50 ordinary members, but any number of honorary members.
2. That the Annual Subscription be 2s. 6d., payable in advance, and the Entrance Fee 1s.
3. That ordinary members place a set of not less than fifty Slides at the disposal of the Secretary.
4. That as soon as completed, a list of members and sets of Slides be posted to every member.
5. That any member wishing to borrow a set of Slides must write to the Secretary (as soon as convenient before the Entertainment for which they are needed), who will arrange for the set of Slides to be sent before the time required, that is, unless previously arranged for. These Slides are to be kept by the borrower until requested by the Secretary to forward them elsewhere. All Slides to be sent *carriage forward*, thus the borrower in every case pays carriage.
6. Every member applying for loan of Slides to enclose 6d. in stamps, this to be placed in a fund for replacing broken Slides, but such payment will not relieve the packer of the Slides from liability to replace the same.
7. In the event of any Slides being broken in transit, the receiver shall send them at once to the Secretary, with full particulars of how packed, by what rail, and when received.

These are the principal rules, and upon these we shall be glad if readers of *Hobbies* who may be willing to join the "Lantern Slide Exchange" will send their names and addresses, with short particulars of the 50 Slides they intend to send to the Secretary. We will extend our offer of 150 Slides to the 1st of February, by which time we hope the full complement of members will be enrolled. Particulars will be published week by week in this column.

At a meeting of the members of the Paisley Photographic Society, Mr. T. M. Armstrong gave a demonstration on "Platinotype Printing," and shewed how to print upon cloth. This process lends itself to the painting on mats, d'oyleys, etc., and when a soft-rich sepia tone is obtained, the result is very pleasing and novel.

The Paget Prize Plate Company have just published a thirty page pamphlet of the processes which they recommend for obtaining the best results with their Lantern Plates. The Printing-out Lantern Plate issued by them is very easily manipulated, and with them a warm tone is obtained. These Plates are admirably adapted for architectural subjects.

From West Australia comes the news of the formation of a Photographic Society, and a possible Exhibition of Photographs.

A member of the Lewes Photographic Society in a lecture, recently given upon "Photo-micrography," said:—"Three methods were in use, but the simplest was by attaching to an ordinary quarter-plate Camera a very simple contrivance, sold by Mawson and Swan for 7s. 6d., for holding the objective and the subject to be photographed.

This, he said, consisted of a flange with a universal screw and a fine adjusting screw for focussing. With a high power, the electric or limelight would be needed; but with a one-inch power, a flat-wick paraffin lamp would do, care being taken to centre the light and to get an evenly illuminated disc. A piece of clear should be used instead of ground glass, and by means of a focussing lens held to the glass, the desired sharpness could be obtained. The exposure was of more consequence than the quantity of light used, and a slow plate preferable to a rapid one. The more rapid the plate, the coarser would be the grain, and less detail would be obtained. An Ilford Isochromatic Lantern Plate was exposed for forty seconds before an ordinary flat-wick paraffin lamp. Using the apparatus previously described, and a one-inch power, with Thomas' Hydroquinone Developer, a splendid negative was obtained.

Messrs. Dallmeyer & Co. have just brought out a new lens for portraiture, working at $f/4$. Its construction permits of including a wider angle than is usual with a rapid portrait lens. At the aperture $f/4$ it is perfectly free from spherical aberration, and will give a perfectly defined image. The lens has been designed for use in small studios, and includes an angle of 60° . To soften or diffuse the picture, the back cell of the combination may be unscrewed half-a-turn, or any less part. It is the intention of the firm to place upon the market a second series of this lens to work at $f/6$, which will be a wide angle universal lens. The name given to the series is the "Stigmatic."

A new cutter for cutting masks has been suggested by Mr. T. M. Armstrong. This is the adaptation of one blade of a pair of bow compasses, to form a cutter, the blade being made sharp like a knife. This, we should imagine, would only answer for circular masks, and would probably only cut one, or at most, two thicknesses of paper at a time.

The Editor of the *Amateur Photographers* in a recent issue of that admirable journal, described a new studio gaslight, which consists of a cluster of nine incandescent gas burners, arranged in such a way as to concentrate all the light on the sitter. It is, we understand, the invention of Mr. T. D. Beaufort, of Birmingham.

This may be useful to some of our readers. It appeared in the columns of the *Optician*—"Mr. E. D. Bartlett has hit upon the very ingenious device of sensitising tracing paper, or, as the French term it, dioptric paper, for the blue printing process. By interspersing a sheet of sensitised tracing paper between the line negative and the ordinary blue printing paper, two positive copies may be made at one and the same time."

The suggestions that we have given as to making Lantern Slides of the illustrations in "Alice in Wonderland," prompts us to give a note upon "How to copy Engravings." Workers invariably find a difficulty in successfully doing this work so as to reduce the prominence of the lines and cross hatchings. These rough lines, when under magnification by the Lantern, spoil the picture. It is possible to tone them down and break up the lines which appear so prominent in skies and foregrounds. Cover the engraving which is to be copied with a thin and finely ground piece of glass, the polished side downwards. This glass must be chemically clean, to attain which it should be brushed over with ammonia or nitric acid, and then well washed. When the glass is in position, it will be noticed that the engraving has the appearance of a pencil drawing. No lines are visible, but a general softness pervades the whole picture. To restore vigour to the important parts of the picture, go over the ground glass surface with a brush dipped in oil, painting as it were every portion, except the sky and the immediate foreground where the strong and objectionable lines are to be seen. This operation will give the desired blackness, and render it possible to produce a first-class negative.

The use of the Optical Lantern in connection with religious services is much upon the advance. At St. Mary-at-Hill, a church in the very heart of London, the Sunday Evening Service is regularly concluded with Lantern pictures, which are explained from the pulpit, or more often than not are left to tell their own story, assisted only by the singing of the choir.

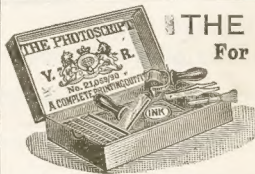
Photography has supplied many of the illustrations for the special numbers of the magazines this year. The work of two gentlemen who have made Animal Photography a study are very prominent. Mr. Gambier Bolton contributes to the *Windsor Magazine* carefully illustrated articles on "The Human Element in Wild Beasts," and Mr. Henry Sandland, J.P., has an article in the *Westminster Budget* on "Half-Holidays in the Zoo," in which are reproduced nearly a hundred Photographs taken by himself. Mr. Sandland is a retired silk merchant, who has taken up Photography as a Hobby, and particularly the Photography of Animals.

BRILLIANT NEGATIVES.

Take a piece of soft rag and moisten with a few drops of essence of Terebene; rub, very gently, the gelatine surface of the negative, and when the rag has become dry, moisten it again and again, as often as the surface of the plate makes it necessary. This can be continued until the surface of the negative will shine like a mirror.

SPILLING HYPO, ETC.

Some workers are very careless in the Dark Room; nothing militates so much against good Photography as carelessness, especially in the Dark Room. If anything is accidentally upset or spilled, don't leave it to dry, but wipe up at once, as otherwise, especially with hypo and pyro, and many of the developing agents, it will evaporate and precipitate fine crystals, so minute that they will float about as dust, and will work their insidious way into packets of printing paper and boxes of plates, with a result that faulty prints and negatives are made, and too often the blame is saddled on the wrong horse, instead of "carelessness."



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H. LINDNER,

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NEXT SEASON'S CRICKET.—The meeting of county secretaries to arrange next year's cricket fixtures was a success, because all the counties pledged themselves to give up their men for the representative matches with Australia. Needless to say, the colonials will have a hearty welcome, and one can only express a pious wish that the friction that characterised the last visit as amongst the players themselves will be entirely absent on this occasion. It seems fairly clear that the M.C.C. will have, owing to this visit and the extra matches that have to be played, to declare six in-and-out matches instead of eight sufficient for the first-class counties. The meeting was pretty unanimous on this point. Lord Harris touched on the county qualification, but the matter was not pressed.—*Truth*.

We have received Mr. Walter Tyler's Catalogue of Lanterns and Slides, a book of 400 or 500 pages, which contains particulars of almost every form of Lantern, and a list of Slides for hire, which we believe to be the largest and most varied published.

Highest Award at Food and Cookery Exhibition,
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